

2017

Utilization of Physical Therapy During Student Service Learning Project to Guatemala

Lucas Willers
University of Puget Sound

Hannah Hourie-Collins
University of Puget Sound

Bonnie Cramer
University of Puget Sound

Follow this and additional works at: <https://soundideas.pugetsound.edu/ptsymposium>



Part of the [Physical Therapy Commons](#)

Recommended Citation

Willers, Lucas; Hourie-Collins, Hannah; and Cramer, Bonnie, "Utilization of Physical Therapy During Student Service Learning Project to Guatemala" (2017). *Physical Therapy Research Symposium*. 27.
<https://soundideas.pugetsound.edu/ptsymposium/27>

This Poster is brought to you for free and open access by the Physical Therapy, School of at Sound Ideas. It has been accepted for inclusion in Physical Therapy Research Symposium by an authorized administrator of Sound Ideas. For more information, please contact soundideas@pugetsound.edu.

Utilization of Physical Therapy During a Student Service Learning Project to Guatemala

Bonnie Cramer SPT, Hannah Hourie-Collins SPT, Lucas Willers SPT, Holly Roberts PT, DPT, GCS, NCS
University of Puget Sound

Introduction

Guatemala is a Central American country home to approximately sixteen million people with nearly 45% living in rural communities. Although each citizen has the right to universal health care, limitations in resources and access prevent adequate utilization. Over 80% of doctors work in Guatemala City, contributing to a system of health care disparity that disproportionately affects rural Guatemalans. The purpose of this project was to collect demographic information for a descriptive analysis of patients accessing physical therapy services in rural Guatemala over the course of a week-long international service learning project by student physical therapists. The goal of the international service learning project was to provide skilled physical therapy to resource limited communities, experience Guatemalan culture, and develop the student's physical therapy skills.

Methods

Data was collected over a five-day period at 4 clinical locations in the Zacapa region of Guatemala. Sites included two outpatient physical therapy clinics, one mobile clinic, and one outpatient clinic associated with a public hospital. All clinical sites were operated by the non-profit organization Hearts in Motion. Demographics were collected for each patient regarding their age, gender, diagnosis, treatment type, and facility location. Data was gathered by five physical therapy students from the University of Puget Sound who participated in this service learning project.



Figure 1. Image of reaching activity for postural control in pediatric patient.



Figure 2. Image of a physical therapy clinic gym in Zacapa, Guatemala.

Results

Table 1. Anatomical distribution of injuries by patient population domain.

	Number	Percentage of Total
Gender		
Males	43	44%
Females	54	56%
Orthopedic Cases		
LE Cases	33	34%
Hip	7	7%
Knee	21	22%
Ankle	5	5%
UE Cases	7	7%
Shoulder	3	3%
Elbow	3	3%
Wrist/Hand	1	1%
Trunk/Spine Cases	15	15%
Cervical	2	2%
Thoracic	2	2%
Lumbosacral	11	11%
Neurological Cases		
CVA	10	10%
SCI	1	1%
TBI	1	1%
Other	3	3%
Pediatric Cases	27	28%

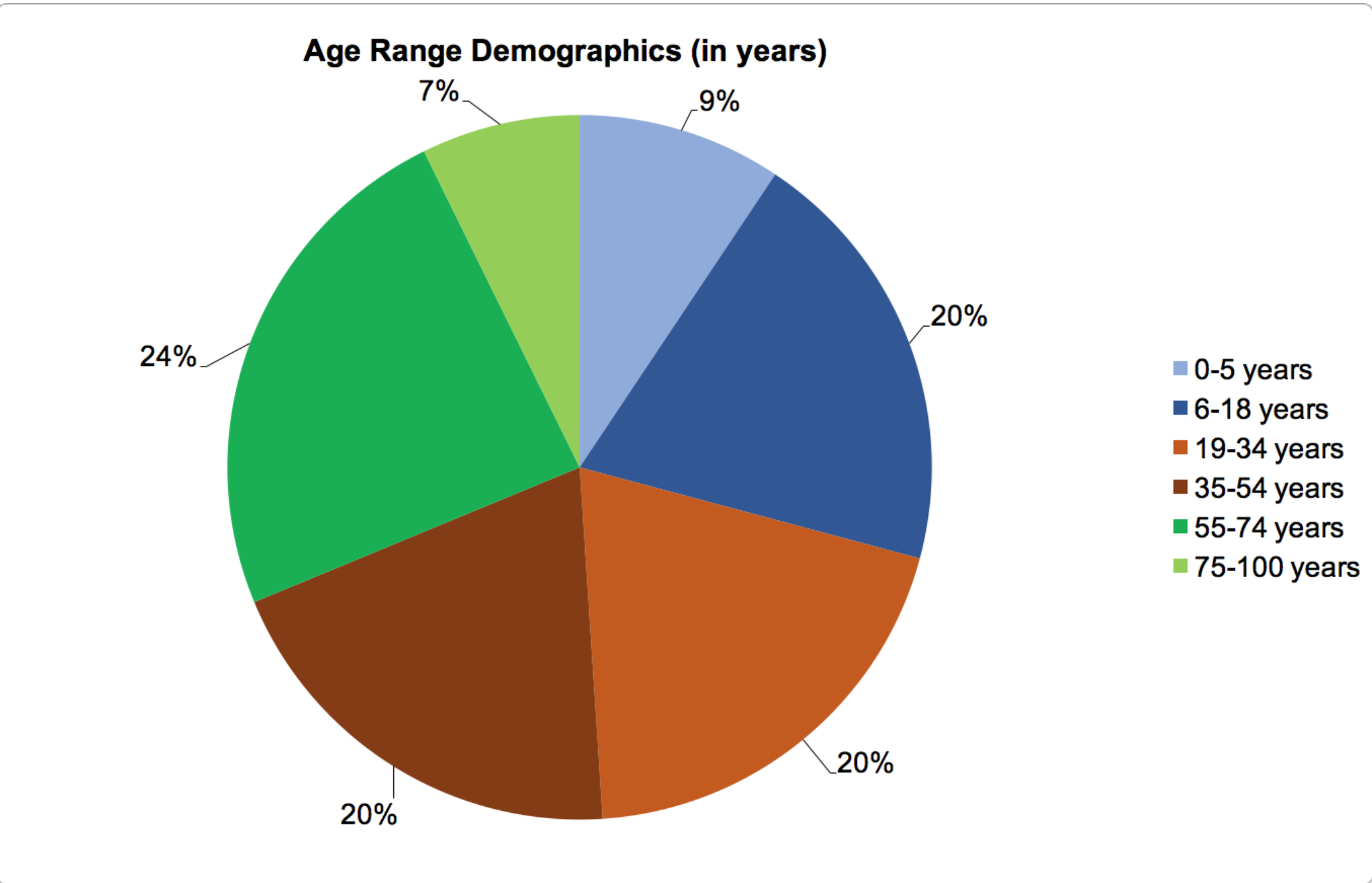


Figure 3. Distribution of age ranges seen for treatment during this service learning project.

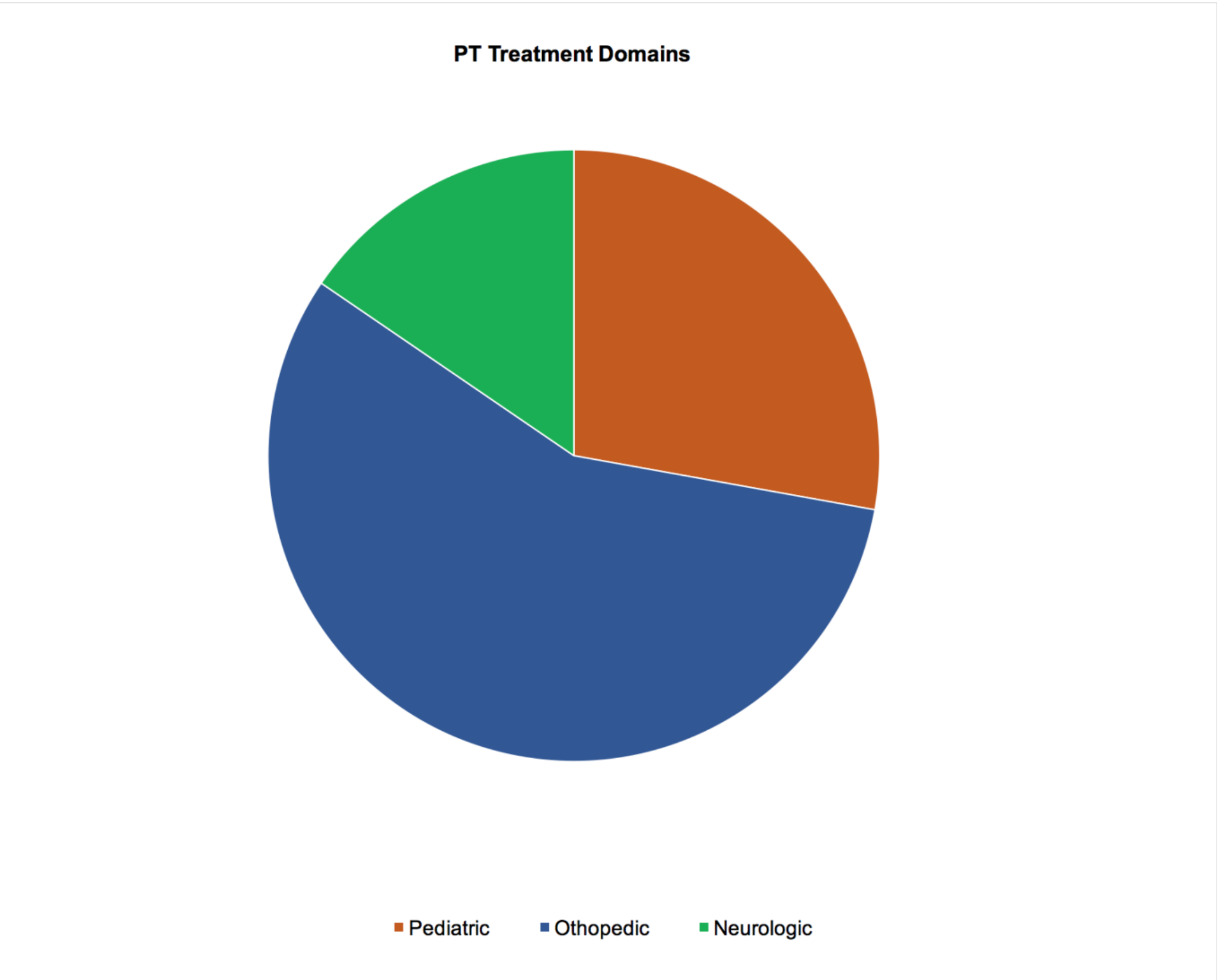


Figure 4. Distribution of patient populations seen during service learning trip to Guatemala.

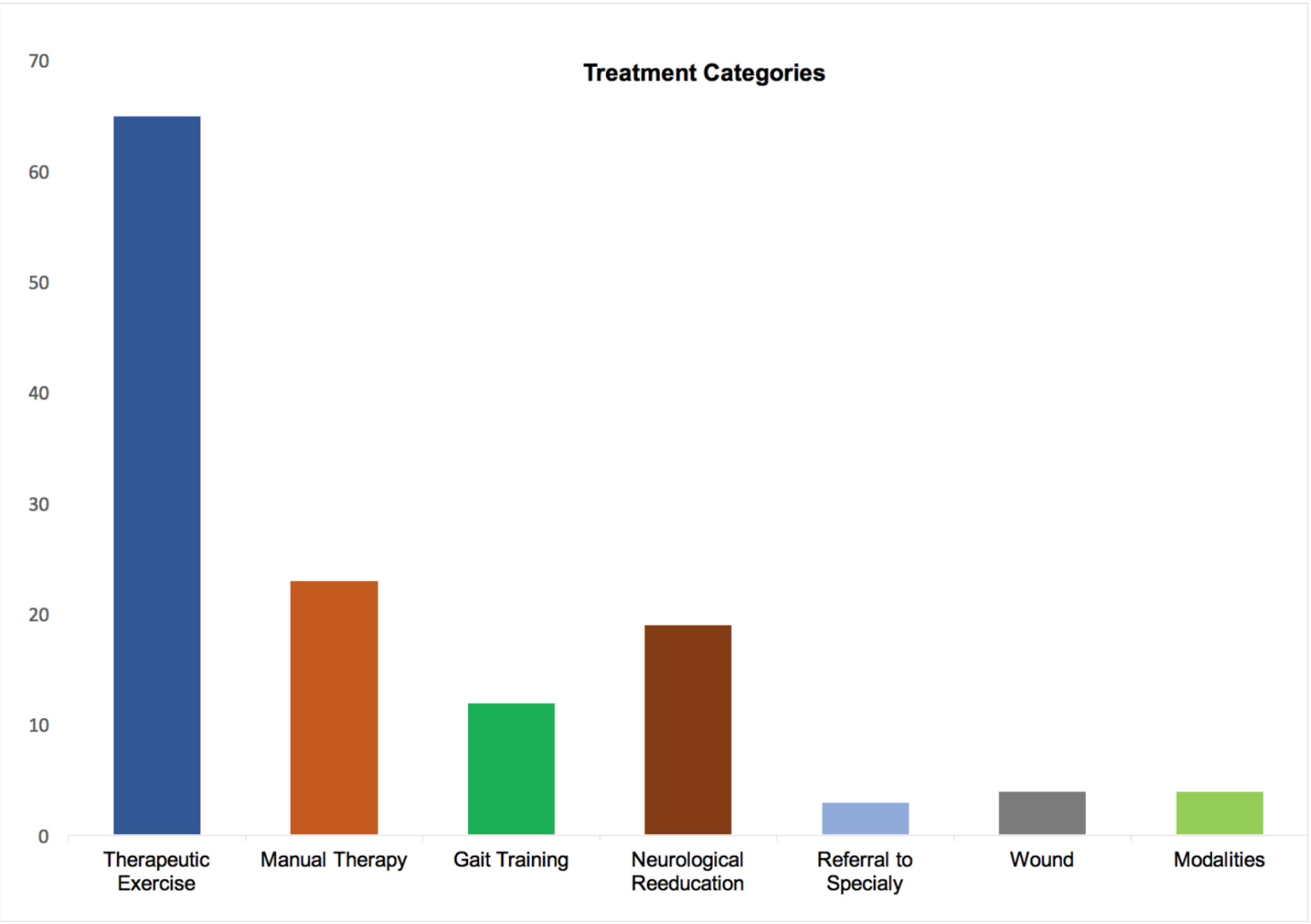


Figure 5. Distribution of interventions that were used to treat patients during this service learning trip.

Discussion

A brief English language literature review of Guatemalan health demographics yielded limited results, therefore it is difficult to determine to what degree the patient population observed in this student learning project is representative of the larger Guatemalan population who seek healthcare services. One 2012 study surveyed 1000 subjects in rural and urban Guatemala, and showed that the most prevalent musculoskeletal diseases were 1) osteoarthritis, 2) soft tissue rheumatism, 3) rheumatoid arthritis, 4) low back pain, and 5) arthralgias of unknown etiology. Soft tissue rheumatism is the aggregate of clinical problems related to tendons, ligaments, fascia and bursae, often presenting as a regional problem. These results are comparable to our observations as we viewed a high prevalence of osteoarthritis, orthopedic soft tissue rheumatism, and low back pain. It is interesting to note that 12% of patients were seen post-surgically for fracture repair. Anecdotally, the students observed that many fractures were a result of motor vehicle accidents related to scooter use, a prevalent mode of transportation in Guatemala. Ultimately, a lack of data regarding physical therapy utilization in the United States makes meaningful comparison between the two countries difficult.

References

1. Obregón-Ponce A, Iraheta I, García-Ferrer H, Mejía B, García-Kutzbach A. Prevalence of Musculoskeletal Diseases in Guatemala, Central America. JCR: Journal of Clinical Rheumatology. 2012;18(4):170-174. doi:10.1097/rhu.0b013e3182583803.



Figure 6. Participants involved in this service learning project.